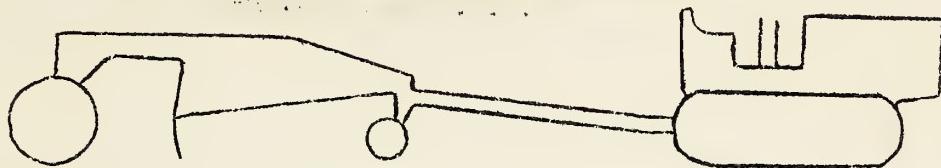


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CONSTRUCTION



HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Vol. 1 Washington, D. C. July 13, 1935. No. 5.

Most of the articles in this issue originated in Region 8. That is making a start toward a better "Construction Hints." Thanks.

H.L.F.

The illustrations shown in this issue need very little explanation:-

Timber Hitch: used for hauling and lifting logs and poles. It can easily be loosed when the strain is taken off, but will not slip under a pull.

Hawser Bond: used for joining two large ropes or cables. Each end is seized to its own standing part.

Bowline: forms a loop that will not slip.

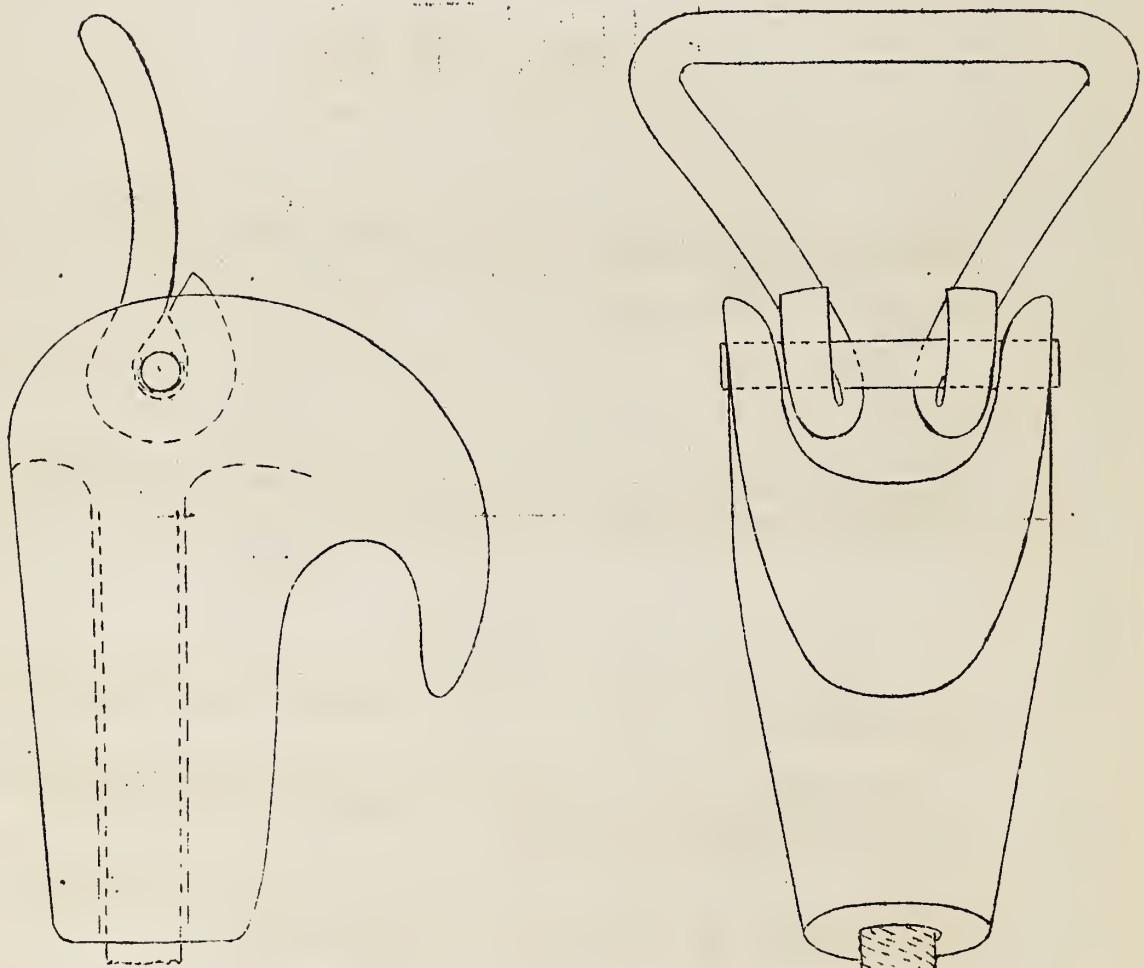
Running Bowline: a further adaptation of the bowline

A considerable amount of bank stabilization is being done in Region 8. It appears that honeysuckle vines are generally giving the best results.

(over)

ATTACHMENT HANDLE
FOR
DORSEY HOOK

Designed by: R. H. Mawhinney, Acting Surveyor
Original Idea and made by: Pete Locke, Asst.
Leader and Blacksmith, V.C.C.C. Co. 2418
E.C.W. Camp, Fla. P-70



PILE DRIVER

Region 8 has designed a pile driver with folding leads and a pair of detachable wheels. This outfit can be quickly set up or taken down and moved from place to place by towing behind a truck. Any Region interested may secure detailed plans from the Regional Office at Atlanta.

Region 8 has an explosive specialist who travels from camp to camp and aids the powder men in the use of explosives. Judging from present indications this will result in a considerable saving in the amount of explosives used, as well as in better work on the part of the powder men.

The following articles were written by A. L. Anderson of the Washington Office:

LOCATION OF TRUCK TRAILS

The truck trail locator should endeavor to secure the best possible alignment and grade within the allowable cost limit. If a certain curve conforms to the minimum radius specified for the project, that fact alone does not make it satisfactory. If a larger radius curve could have been constructed at no increase in cost, this should have been done.

Though a project may be classified as low service, the locator should get the best possible combination of alignment and grade without increasing the cost above that necessary to comply with the specifications. Study the location. Do not be satisfied simply because you comply with the specifications if you can exceed them for the same cost.

SIDE DITCHES

Ordinarily side ditches on a road are constructed for two purposes; (1) drainage and (2) borrow pits when fill material is required.

From the standpoint of the service value of the road the ditch is very undesirable, but is a "necessary evil". Therefore, ditches should not be made any deeper than necessary. When they are deep enough to serve the drainage purpose any additional material required for fill should be taken by widening the ditch outwards rather than by making it deeper.

Grader men should regulate the depth of ditch according to the need for it. When going over the top of a hill on a turnpike section the ditch should be only enough to define the road.

Do not set your blade for a foot or two and go along with the same depth over hills, swamps and dry flats.

the first time, and the author has been unable to find any reference to it in any of the standard works on the subject. It is described as follows:

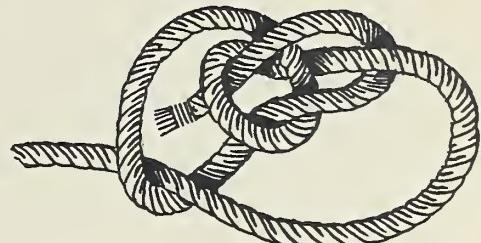
The plant is a small shrub, 1-2 m. high, with a dense, rounded crown. The leaves are opposite, elliptic-lanceolate, 10-15 mm. long, 5-7 mm. wide, acute at the apex, obtuse at the base, smooth, dark green above, paler below, with prominent veins. The flowers are numerous, white, bell-shaped, 10-12 mm. long, arranged in cymes. The fruit is a small, round, yellowish-orange drupe, 5-7 mm. in diameter.

The author has examined a specimen of this plant from the type locality, and is confident in his identification. He believes that it is a new species, and has named it *Psychotria* sp. nov. The name is derived from the Greek word *psychos*, meaning "spirit," and *treia*, meaning "tree," in reference to the fact that the plant is a tree-like shrub.

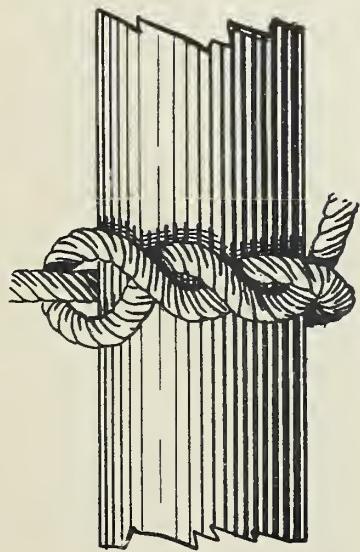
The author wishes to thank Dr. J. C. Ellsworth, Director of the Missouri Botanical Garden, for his assistance in the preparation of this paper. He also wishes to thank Dr. W. E. Higgins, Curator of the Herbarium of the Missouri Botanical Garden, for his help in the preparation of the herbarium specimen.



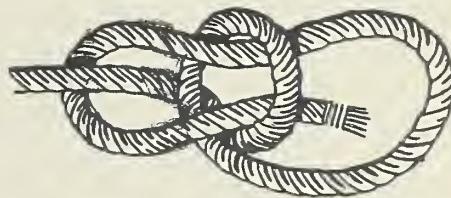
Hawser Bend



Running Bowline



Timber Hitch



Bowline

